

WHAT IS CLAIMED IS:

- 1           1.       A wireless storage network, comprising:  
2           a first wireless storage node;  
3           a network node; and  
4           a plurality of wireless channels coupling the first wireless storage node and the  
5           network node, an assignment of the plurality of the wireless channels of the first wireless  
6           storage node being based upon loading.
- 1           2.       The wireless storage network of claim 1, wherein the network node  
2           comprises a second wireless node.
- 1           3.       The wireless storage network of claim 1, wherein the loading comprises  
2           system loading.
- 1           4.       The wireless storage network of claim 1, wherein the loading comprises  
2           loading of the first wireless storage node.
- 1           5.       The wireless storage network of claim 1, wherein the first wireless storage  
2           node is assigned a first number of the wireless channels to provide a first bandwidth.
- 1           6.       The wireless storage network of claim 5, wherein, upon a load change, the  
2           first wireless storage node is assigned a second number of the wireless channels to  
3           provide a second bandwidth.

1           7.       A method for providing wireless storage, comprising:  
2           assigning a first set of wireless channels to a first wireless storage node;  
3           assigning a second set of wireless channels to a wireless network node;  
4           monitoring a loading between the wireless network node and at least the first  
5 wireless storage node; and  
6           modifying the assignment of wireless channels when the loading between the  
7 wireless network node and at least the first wireless storage node changes.

1           8.       The method of claim 1, wherein the monitoring a loading comprises  
2 monitoring a system loading.

1           9.       The method of claim 1, wherein the monitoring a loading comprises  
2 monitoring loading of the first wireless storage node.

1           10.      The method of claim 1, wherein the modifying the assignment of wireless  
2 channels comprises assigning additional wireless channels to the first wireless storage  
3 node when a larger bandwidth is needed.

1           11.      The method of claim 1, wherein the modifying the assignment of wireless  
2 channels comprises reducing the number of wireless channels to the first wireless storage  
3 node when the wireless network node needs more bandwidth to communicate with a  
4 second wireless storage node.

1           12.     The method of claim 1, wherein the assigning a second set of wireless  
2 channels to a wireless network node further comprises assigning a second set of wireless  
3 channels to a wireless storage node.

1           13.     A wireless storage network, comprising:  
2           a plurality of wireless storage devices having at least one wireless interface each;  
3           and  
4           a plurality of wireless channels, the wireless channels being assigned to the  
5 wireless interfaces of the plurality of wireless storage devices;  
6           wherein the load to the plurality of wireless storage devices is balanced by  
7 adjusting assignments of the plurality of wireless channels to the plurality of wireless  
8 storage devices.

1           14.     The wireless storage network of claim 13 further comprising at least one  
2 wireless network device for controlling the assignment of wireless storage devices.

1           15.     The wireless storage network of claim 13, wherein the loading comprises  
2 system loading.

1           16.     The wireless storage network of claim 13, wherein the loading comprises  
2 loading of a wireless storage device.

1           17.     The wireless storage network of claim 13, wherein a first wireless storage  
2     node is assigned a first number of the wireless channels to provide a first bandwidth.

1           18.     The wireless storage network of claim 17, wherein, upon a load change,  
2     the first wireless storage node is assigned a second number of the wireless channels to  
3     provide a second bandwidth.

1           19.     A program storage device readable by a computer tangibly embodying one  
2     or more programs of instructions executable by the computer to perform a method for  
3     providing wireless storage, the method comprising:

4                 assigning a first set of wireless channels to a first wireless storage node;

5                 assigning a second set of wireless channels to a wireless network node;

6                 monitoring a loading between the wireless network node and at least the first  
7     wireless storage node; and

8                 modifying the assignment of wireless channels when the loading between the  
9     wireless network node and at least the first wireless storage node changes.

1           20.     The program storage device of claim 19, wherein the monitoring a loading  
2     comprises monitoring a system loading.

1           21.     The program storage device of claim 19, wherein the monitoring a loading  
2     comprises monitoring loading of the first wireless storage node.

1           22.     The program storage device of claim 19, wherein the modifying the  
2     assignment of wireless channels comprises assigning additional wireless channels to the  
3     first wireless storage node when a larger bandwidth is needed.

1           23.     The program storage device of claim 19, wherein the modifying the  
2     assignment of wireless channels comprises reducing the number of wireless channels to  
3     the first wireless storage node when the wireless network node needs more bandwidth to  
4     communicate with a second wireless storage node.

1           24.     The program storage device of claim 19, wherein the assigning a second  
2     set of wireless channels to a wireless network node further comprises assigning a second  
3     set of wireless channels to a wireless storage node.